

IN THE CLAIMS

Please amend the claims as follows:

1. (currently amended) An isolated OMP106 polypeptide, substantially purified from its source to between 70% and 99% pure by weight, which is an outer membrane polypeptide of *Moraxella catarrhalis*, ~~and which is extractable from intact cells at room temperature in 1.25% w/v n-octyl glucoside~~ and which has a molecular weight of about 180 kD to about 230 kD as determined in SDS polyacrylamide gel electrophoresis using rabbit skeletal muscle myosin and *E. coli* β -galactosidase as the 200 kD and 116.25 kD molecular weight standards, respectively, and which comprises the amino acid sequence of SEQ ID NO: 1 or a sequence at least 80% identical to SEQ ID NO: 1.
2. (original) The OMP106 polypeptide of claim 1, which has a molecular weight of about 190 kD.
3. (currently amended) the OMP106 polypeptide of claim 1, which is an outer membrane polypeptide of *Moraxella catarrhalis* strain selected from the group consisting of ATCC® (American Type Culture Collection) 25238, ATCC® (American Type Culture Collection) 25240, ATCC® (American Type Culture Collection) 43617, ATCC® (American Type Culture Collection) 43618, ATCC® (American Type Culture Collection) 43627, ATCC® (American Type Culture Collection) 43628 and ATCC® (American Type Culture Collection) 49143.
4. (currently amended) The OMP106 polypeptide of claim 3, in which said *Moraxella catarrhalis* strain is ATCC® (American Type Culture Collection) 49143.

5. (previously presented) The OMP106 polypeptide of claim 3, wherein the *Moraxella catarrhalis* strain is a hemagglutinating cultivar.
6. (original) The OMP106 polypeptide of claim 1, which reacts with silver stain.
7. (currently amended) The OMP106 polypeptide of claim 1, which specifically binds an antibody that specifically binds a polypeptide having amino acid the sequence of SEQ ID NO: 1.
8. (currently amended) The OMP106 polypeptide of claim 1, which specifically binds an antibody that specifically binds a polypeptide having amino acid the sequence of SEQ ID NO: 11.
- 9-12. (cancelled)
13. (withdrawn) An isolated antibody that specifically binds the OMP106 polypeptide of claim 1 or a fragment thereof.
14. (withdrawn) An isolated antibody that specifically binds the OMP106 polypeptide of claim 9 or a fragment thereof.
15. (withdrawn) An isolated antibody that specifically binds the OMP106 polypeptide of claim 11 or a fragment thereof.
16. (withdrawn) The isolated antibody of claim 13 or 14, which is a cytotoxic antibody that mediates complement killing of *Moraxella catarrhalis*.
- 17-26. (cancelled)
27. (withdrawn) A method of producing an immune response in an animal comprising immunizing the animal with an effective amount of the OMP106 polypeptide of any of claims 1, 2, or 5.
28. (Cancelled)

29. (withdrawn) A method of producing a non-hemagglutinating cultivar of *M. catarrhalis* from a HA . *M. catarrhalis* strain or cultivar, which comprises serially passaging a HA *M. catarrhalis* strain or cultivar in static liquid cultures.
- 30-34. (cancelled)
35. (withdrawn) An isolated antibody that specifically binds the OMP 106 polypeptide of claim 33 or a fragment thereof.
- 36-39. (cancelled)
40. (withdrawn) A method of producing an immune response in an animal comprising immunizing an animal with an effective amount of the OMP106 polypeptide of claim 34.
- 41-51. (cancelled)
52. (currently amended) The OMP106 polypeptide of claim 1, which specifically binds an antibody that specifically binds a polypeptide having amino acid the sequence of SEQ ID NO: 9.
53. (previously presented) An antigenic composition comprising the OMP106 polypeptide of claim 52.
54. (previously presented) An antigenic composition comprising the OMP106 polypeptide of claim 52 and a pharmaceutically acceptable carrier.
- 55-56. (cancelled)
57. (currently amended) An isolated OMP106-derived polypeptide, substantially purified from its source to between 70% and 99% pure by weight, ~~which is an outer membrane polypeptide of *Moraxella catarrhalis* and which is extractable~~

~~from intact cells at room temperature in 1.25% w/v n-octyl glucoside and which~~
comprises an amino acid sequence selected from the group consisting of:

- A. SEQ ID NO: 1;
 - B. A a sequence which is at least 80% ~~but less than 100%~~ identical to SEQ ID NO: 1, wherein said polypeptide specifically binds an antibody that specifically binds a polypeptide having amino acid sequence of SEQ ID NO: 9.
 - C. SEQ ID NO: 9;
 - D. A- a sequence which is at least 80% ~~but less than 100%~~ identical to SEQ ID NO: 9, wherein said polypeptide specifically binds an antibody that specifically binds a polypeptide having amino acid sequence of SEQ ID NO: 9.
 - E. SEQ ID NO: 11; and
 - F. A a sequence which is at least 80% ~~but less than 100%~~ identical to SEQ ID NO: 11, wherein said polypeptide specifically binds an antibody that specifically binds a polypeptide having amino acid sequence of SEQ ID NO: 9.
58. (previously presented) An isolated OMP-106 polypeptide fragment consisting of 6 or more continuous amino acid residues of the sequence shown in SEQ ID NO: 1 wherein said fragment is recognized by an antibody that specifically binds a polypeptide comprising SEQ ID NO: 1.
59. (currently amended) A recombinant OMP106 or OMP106-derived polypeptide producible by a transformed host containing an expression vector comprising a

nucleic acid sequence which encodes an amino acid sequence selected from the group consisting of:

- A. SEQ ID NO: 1;
- B. A a sequence which is at least 80% ~~but less than 100%~~ identical to SEQ ID NO: 1; wherein said polypeptide specifically binds an antibody that specifically binds a polypeptide having amino acid sequence of SEQ ID NO: 1.
- C. SEQ ID NO: 9;
- D. A a sequence which is at least 80% ~~but less than 100%~~ identical to SEQ ID NO: 9, wherein said polypeptide specifically binds an antibody that specifically binds a polypeptide having amino acid sequence of SEQ ID NO: 9.
- E. SEQ ID NO: 11; and
- F. A a sequence which is at least 80% ~~but less than 100%~~ identical to SEQ ID NO: 11, wherein said polypeptide specifically binds an antibody that specifically binds a polypeptide having amino acid sequence of SEQ ID NO: 9.

- 60. (currently amended) An antigenic composition comprising the OMP106 polypeptide or OMP106-derived polypeptide of any one of claims 1, 2, 3, 4, 5, 6, 7, 8, 52, 53, 54, 57, 58 or 59.
- 61. (currently amended) The antigenic composition of claim ~~64~~ 60 further comprising a pharmaceutically acceptable carrier.

62. (currently amended) An immunogenic composition comprising the OMP106 polypeptide or OMP106-derived polypeptide of any one of claims 1, 2, 3, 4, 5, 6, 7, 8, 52, 53, 54, 57, 58 or 59.
63. (currently amended) The immunogenic composition of claim ~~63~~ 62 further comprising a pharmaceutically acceptable carrier.
64. (new) An isolated OMP106 or OMP106-derived polypeptide encoded by a nucleic acid that hybridizes under high stringency conditions to SEQ ID NO: 4 or its complement wherein said polypeptide specifically binds an antibody that specifically binds a polypeptide having amino acid sequence of SEQ ID NO: 1 or SEQ ID NO: 9.